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0019362.3 7 August 2000 (07.08.2000) GB IT, LU, MC, NL, **PT**, SE, TR), OAPI patent (BF, BJ, CF,  
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Road, Cambridge CB2 2QH (GB). For two-letter codes and other abbreviations, refer to the "Guid-  
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(54) Title: COMBINATORIAL PROTEIN DOMAINS

(57) Abstract: The present invention relates to a chimaeric folded protein domain comprising two or more sequence segments from parent amino acid sequences that are not homologous, wherein each of said sequence segments: is not designed or selected to consist solely of a single complete protein structural element and is not designed or selected to consist solely of an entire protein domain; and, in isolation, shows no significant folding at the melting temperature of the chimaeric protein; as well as to methods for the selection of such domains; and to a chimaeric folded protein domain comprising two or more sequence segments which share common sequences or sequences from common regions in the protein fold of their parent amino acid sequences, wherein the said common region of the fold is not designed or selected to consist solely of one or more complete protein structural elements, and wherein each of said sequence segments: is not designed or selected to consist solely of an entire protein domain; and wherein, in isolation, each said sequence segment shows no significant folding at the melting temperature of the chimaeric protein; as well as to methods for the selection of such domains.

# INTERNATIONAL SEARCH REPORT

International Application No

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## 4. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/62 C07K14/00 C12N15/10

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

CHEM ABS Data, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 95 21914 A (PASTEUR MERIEUX SERUMS ET VACCINS) 17 August 1995 (1995-08-17) the whole document ---	28-34, 66-72
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☒ Further documents are listed in the continuation of box C

☒ Patent family members are listed in annex

### \* Special categories of cited documents

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- 'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- 'X' document of particular relevance the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- 'Y' document of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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# INTERNATIONAL SEARCH REPORT

Int. J. Application No

PCT/GB 01/00445

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A	<p>A CRAMER ET AL.: "DNA shuffling of a family of genes from diverse species accelerates directed evolution"</p> <p>NATURE, ,</p> <p>vol. 391, 15 January 1998 (1998-01-15), pages 288-291, XP002178865</p> <p>MACMILLAN MAGAZINES., US</p> <p>ISSN: 0028-0836</p> <p>cited in the application</p> <p>the whole document</p> <p>---</p>	1-27
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